Naval Expeditionary Warfare Updat

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Agenda

- Amphibious Warfare
- Mine Warfare
- EOD/Naval Coastal Warfare
- Sea Basing

Amphibious Warfare

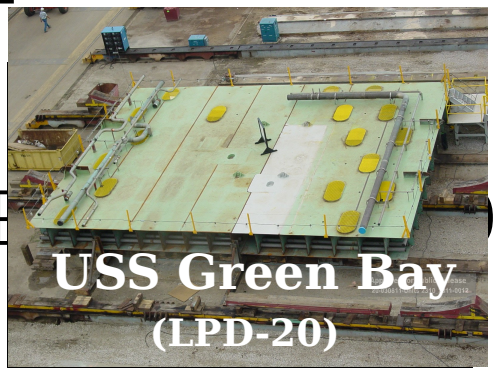
- Ships and Platforms
- Expeditionary Strike Group

LPD 17

Deliver Nov 04

Deliver Sep

Deliver Dec



Deliver Jun 0

LHD 8 (USS Makin Island)

- Delivery sked for FY07.
- Replaces one TARAWA class LHA

✓Gas Turbine LM2500+

✓6 SSDGs/4MW @ 4160 VAC

✓Zonal Electrical Distribution

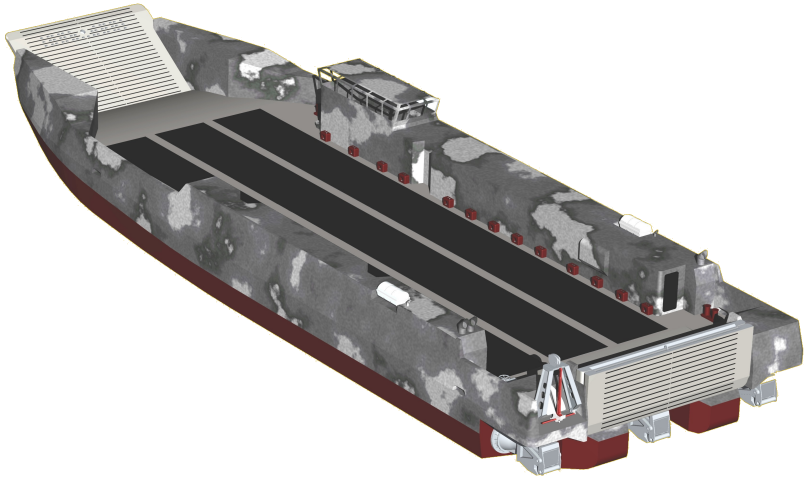
LHA(R)

4 LHA(R)s to replace the remaining LHAs

- FY07/FY13

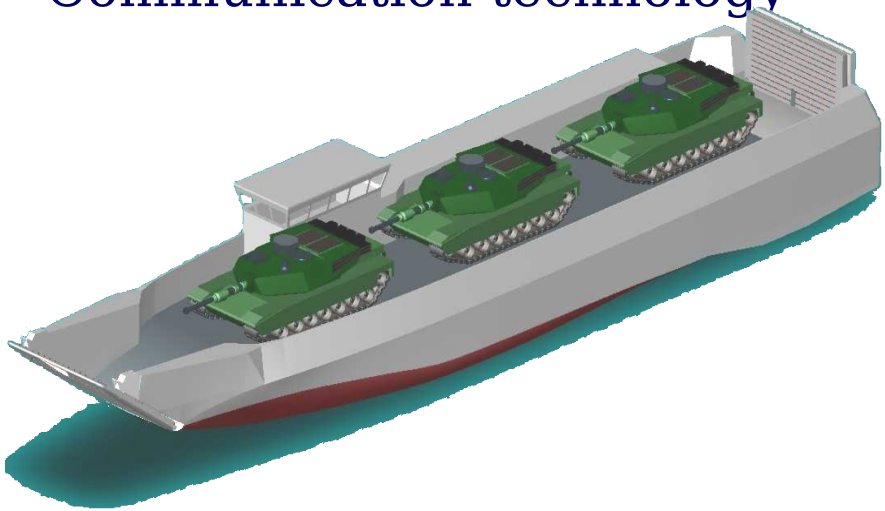
- Increased vehicle stow
- Enhanced Aviation Support
- Additional C2 Capability
- Available Growth Allowance
- Increased Fuel/Ordnance capacity

LCU (R)



- A wide-beam variant was selected, based on AoA - “by far the best performer”
- Increased Capabilities
  - Faster
  - More Lift
  - Significant Sea Keeping Upgrades
  - Reduced Manning
  - Communication technology

- Contract Award for Production in FY05



LCAC SLEP

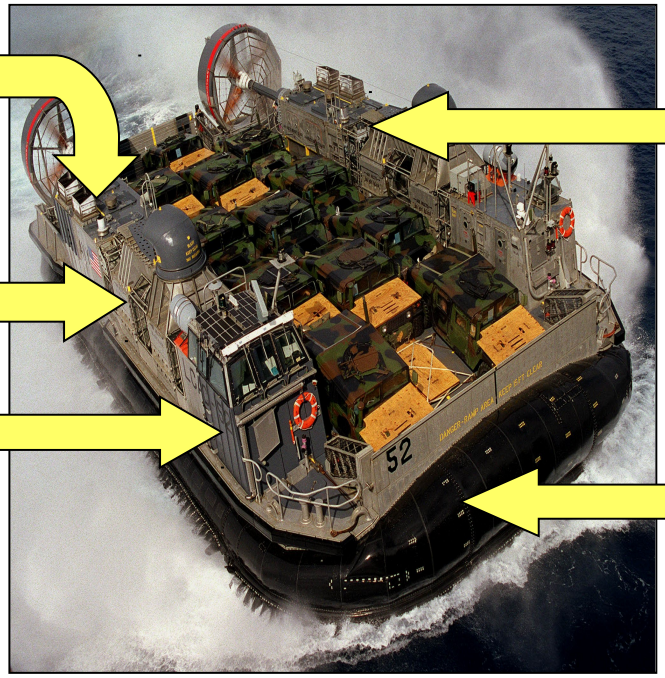
BUOYANCY BOX REFURBISHMENT

ROTATING MACHINERY REFURBISHMENT

- Extends Useful Life of Equipment
- Reduces Maintenance

C4N REPLACEMENT

- Introduces Open Architecture
- Introduces Modern COTS Equipment
- Provides Precision Navigation
- Provides Common Tactical Picture
- Provides Comm Suite Interoperability



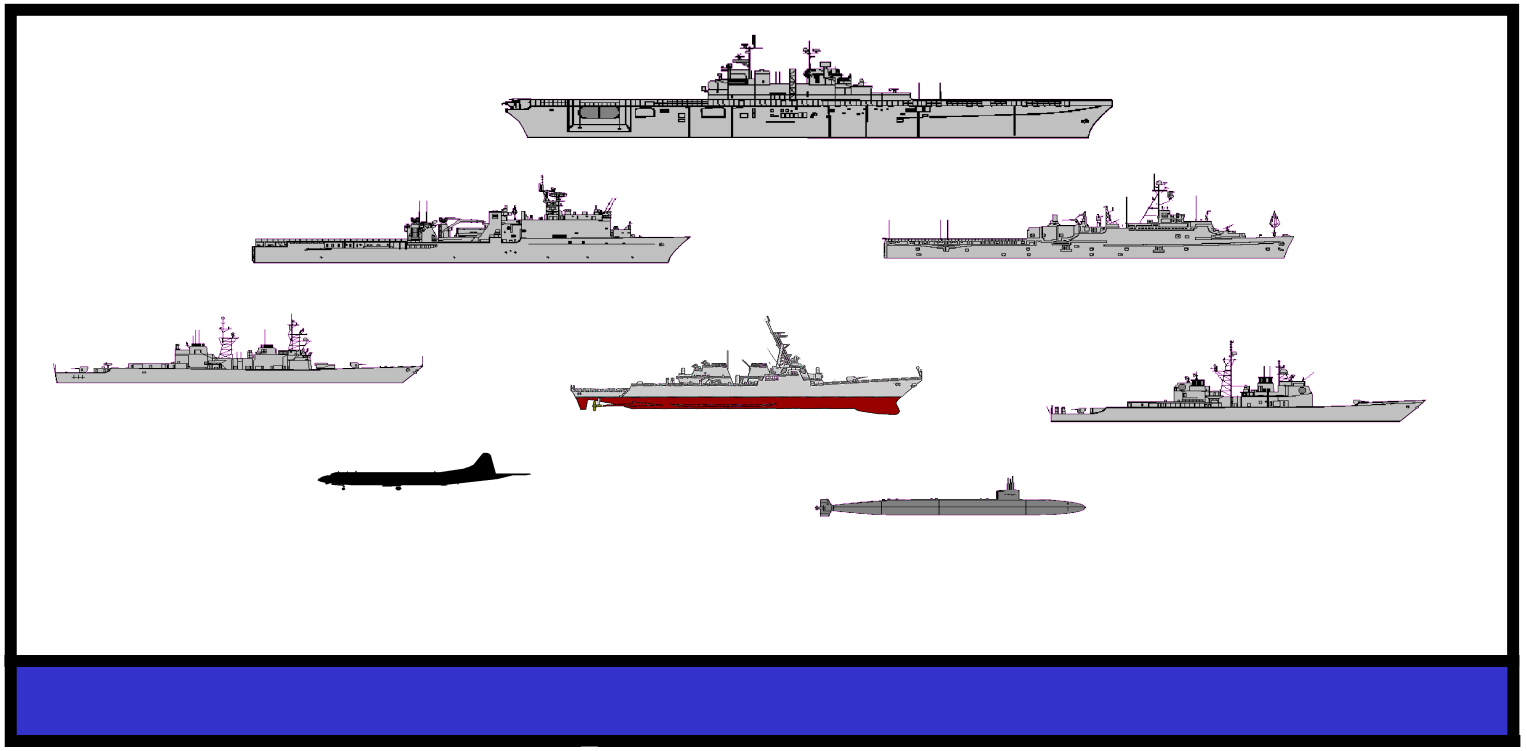
ENHANCED ENGINES

- Provides Additional Power
- Reduces Fuel Consumption
- Reduces Maintenance

DEEP SKIRT

- Reduces Drag
- Increases Performance Envelope
- Reduces Maintenance
- Increases Obstacle Clearance

EXPEDITIONARY STRIKE GROU



Increased Capabilities

- ✓ Strike
- ✓ Defense

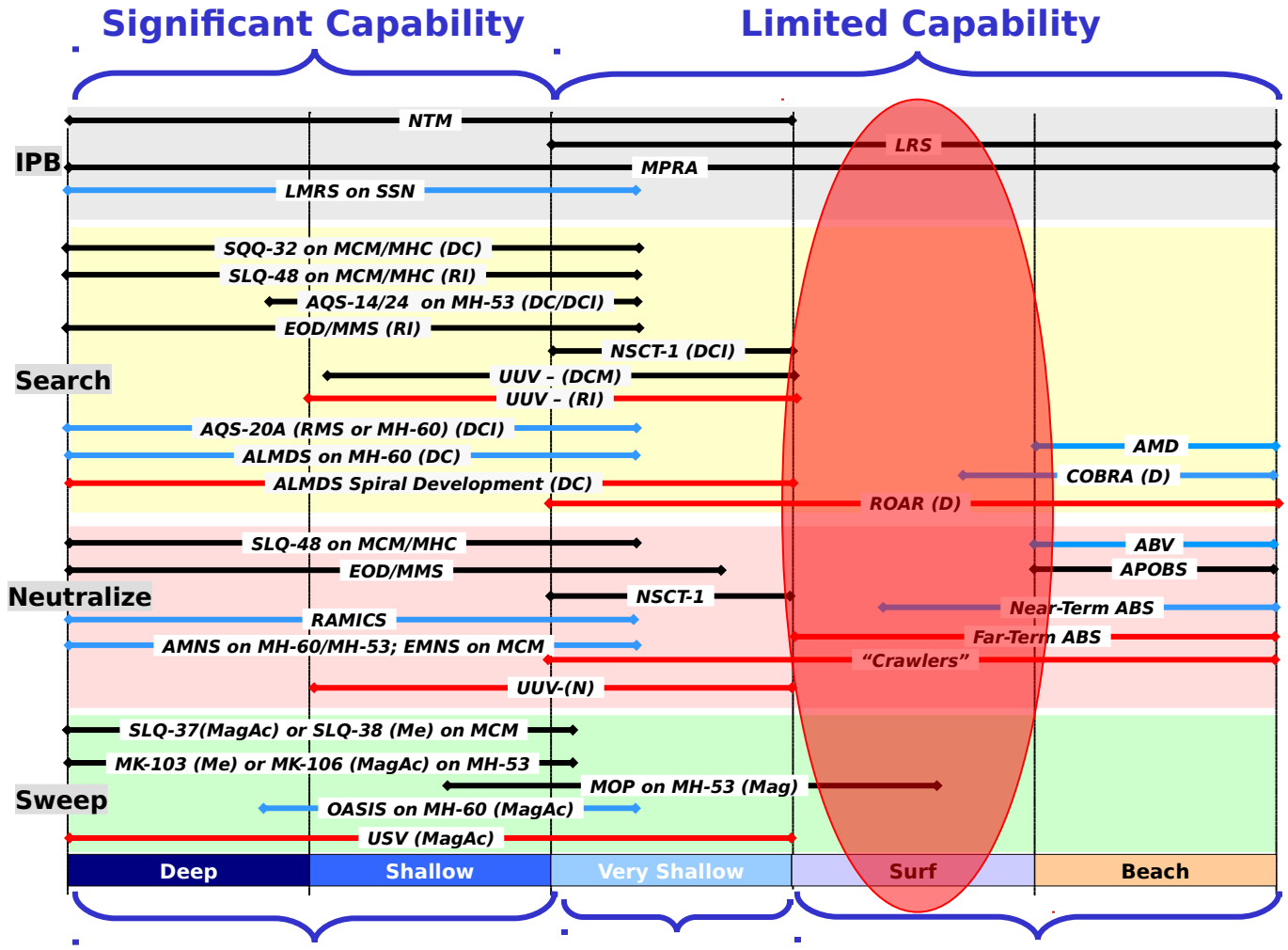
Experimentation

- ❑ Command Organiza
- ❑ Command Relations

Mine Warfare

- MCM Capabilities
- Assault Breaching System
- MCM Gaps

MCM Capability Continuity



Mag - Magnetic
Ac - Acoustic

D - Detect
C - Classify
M - Map
R - Reacquire
I - Identify
N - Neutralize

Systems Status
Current
FYDP
Out-years

Science & Technology/ Research & Development

Near-Term:

- LRS
- BZ/SZ ISR (COBRA)
- UAVs for Reconnaissance
- Near-term ABS (Precision-Guided, General Purpose Bombs)
- USV-based Minesweeping

Far-Term:

- Rapid Overt Airborne Reconnaissance - ROAR (COBRA P3I)
- Far-term ABS (Reactive Darts & Continuous Rod Warhead)
- Unmanned Ground Vehicles (UGV) – "Crawlers"

Dedicated and Organic Mine Countermeasures Systems

NSCT-1 & EOD

Principal area of S&T And R&D Efforts

Assault Breaching System (ABS)

"Family of Systems" Capability

- Intelligence / Surveillance / Reconnaissance (ISR) – UAV Based / National Assets
  - Hydrographic reconnaissance / Bathometry
  - Obstacle & mine detection
  - Targeting
- Breaching (Kill) Mechanism – Stand-off, In-stride Delivery
  - Mines / Obstacles
- Precision Navigation – GPS/DGPS Based
  - AAV / AAAV / LCAC / LCU
    - FAA in progress to determine required lane width clearance requirements.
- C4I

Near-Term (FY06) Kill Mechanism

- MK-80 Series Bombs w/JDAM Tail Kit
- ONR characterizing system (FY03/04)
  - Potential capability fielded in FY06
- Feasibility Demonstrated, Effectiveness unknown
  - # bombs / # sorties per assault lane

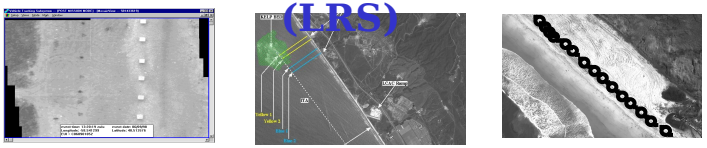
Far-Term (FY14) Kill Mechanism

- Technologies – Precision Guided
  - Chemical / Explosive Darts (mines)
  - Continuous Rod Warhead / MK-80 Series Bombs (obstacles)
- Analysis of Alternatives (FY05)
- Potential Delivery Platforms -
  - Aircraft (Naval Strike / Air Force Bombers)
  - Naval Surface Fire Support

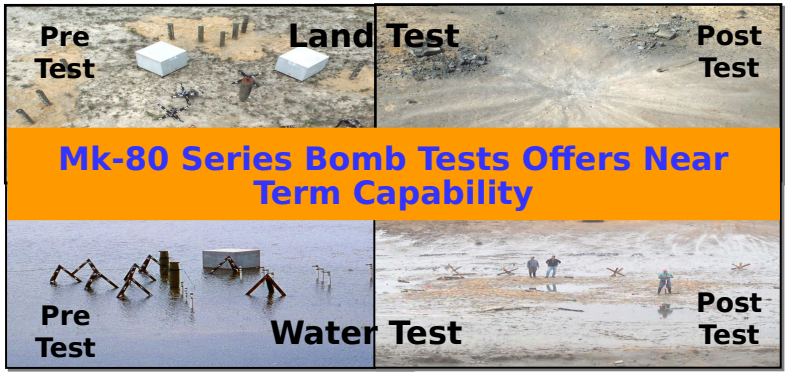
Memorandum of Agreement (MOA) between USN and USAF for Assets to Deliver ABS Munitions is being Staffed

ISR

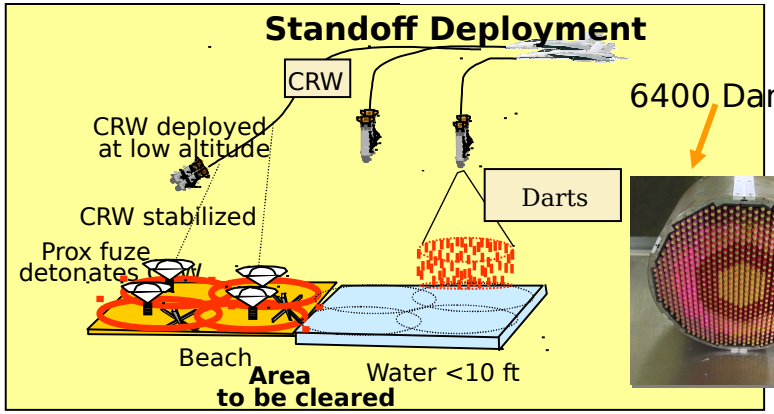
Coastal Battlefield Reconnaissance (COBRA) / Littoral Remote Sensing (LRS)



Near-Term Breaching



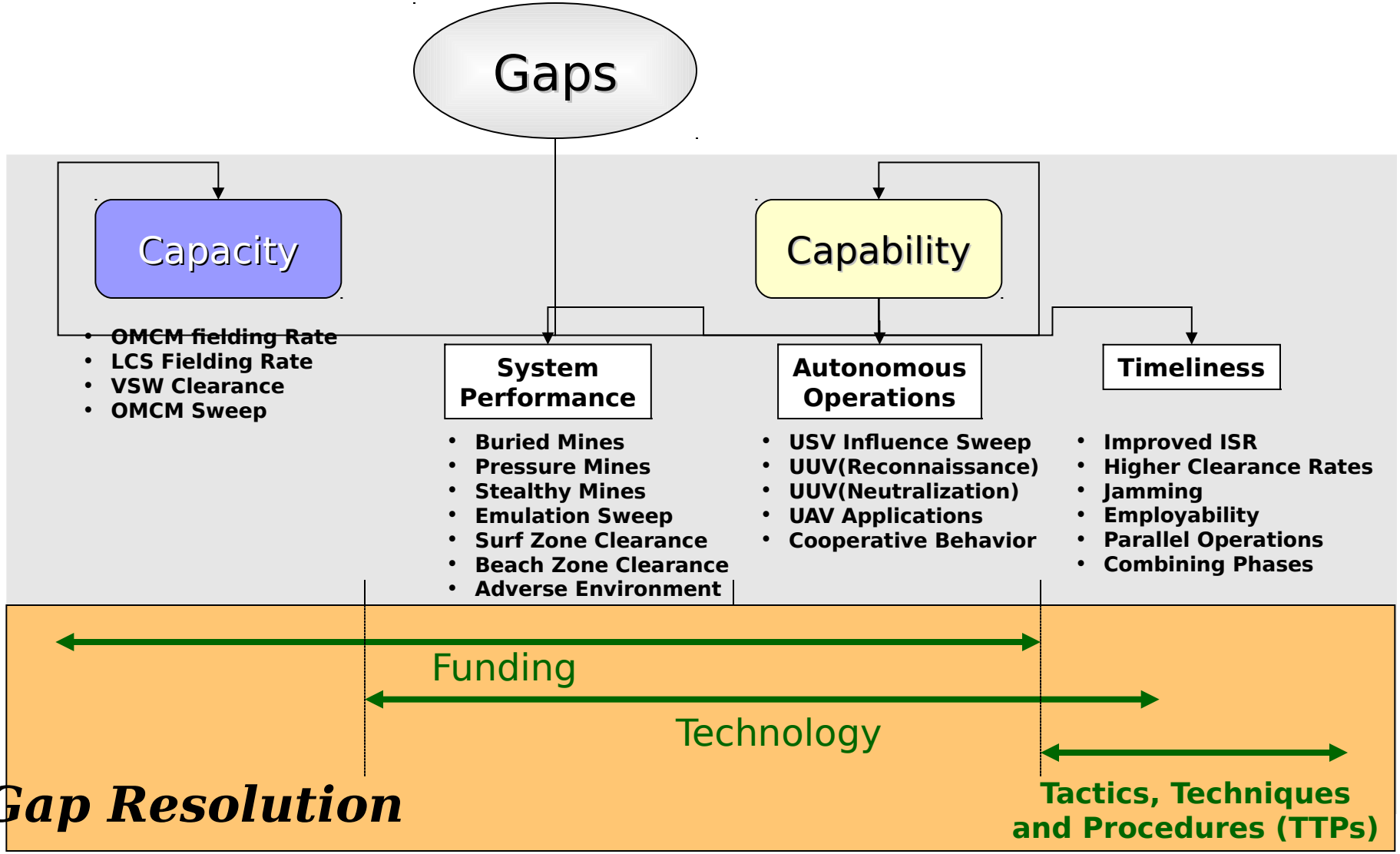
Far-Term Breaching



Nav

Electronic Chart Display and Information System-Navy (ECDIS-N) / LCAC Auto-Pilot

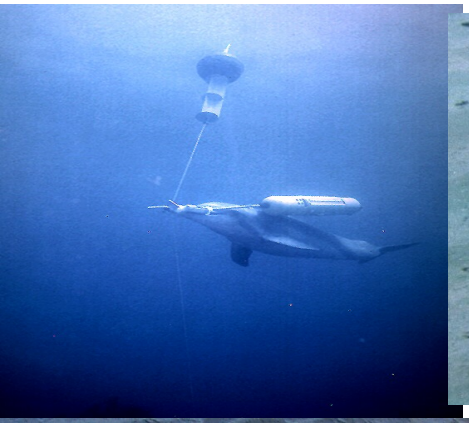
MCM Gaps

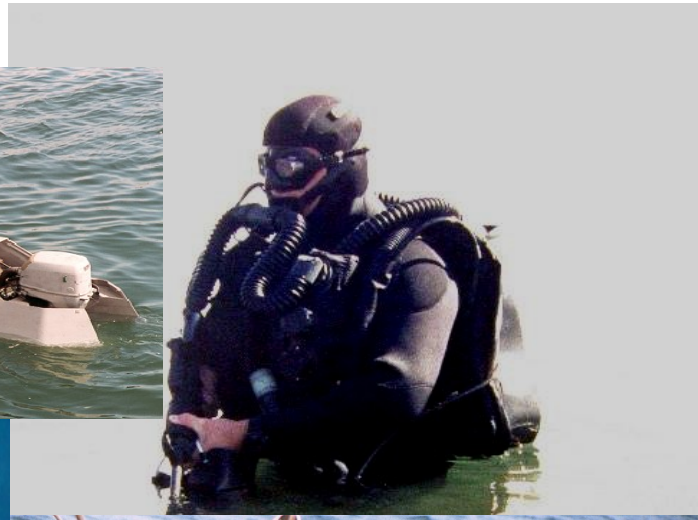

Gaps
Capacity
Capability
OMCM fielding Rate
LCS Fielding Rate
VSW Clearance
OMCM Sweep
System Performance
Buried Mines
Pressure Mines
Stealthy Mines
Emulation Sweep
Surf Zone Clearance
Beach Zone Clearance
Adverse Environment
Autonomous Operations
USV Influence Sweep
UUV(Reconnaissance)
UUV(Neutralization)
UAV Applications
Cooperative Behavior
Timeliness
Improved ISR
Higher Clearance Rates
Jamming
Employability
Parallel Operations
Combining Phases
Funding
Technology
Gap Resolution
Tactics, Techniques and Procedures (TTPs)

EOD/ Naval Coastal Warfare

- Naval Special Clearance Team-1
- Mobile Security Forces

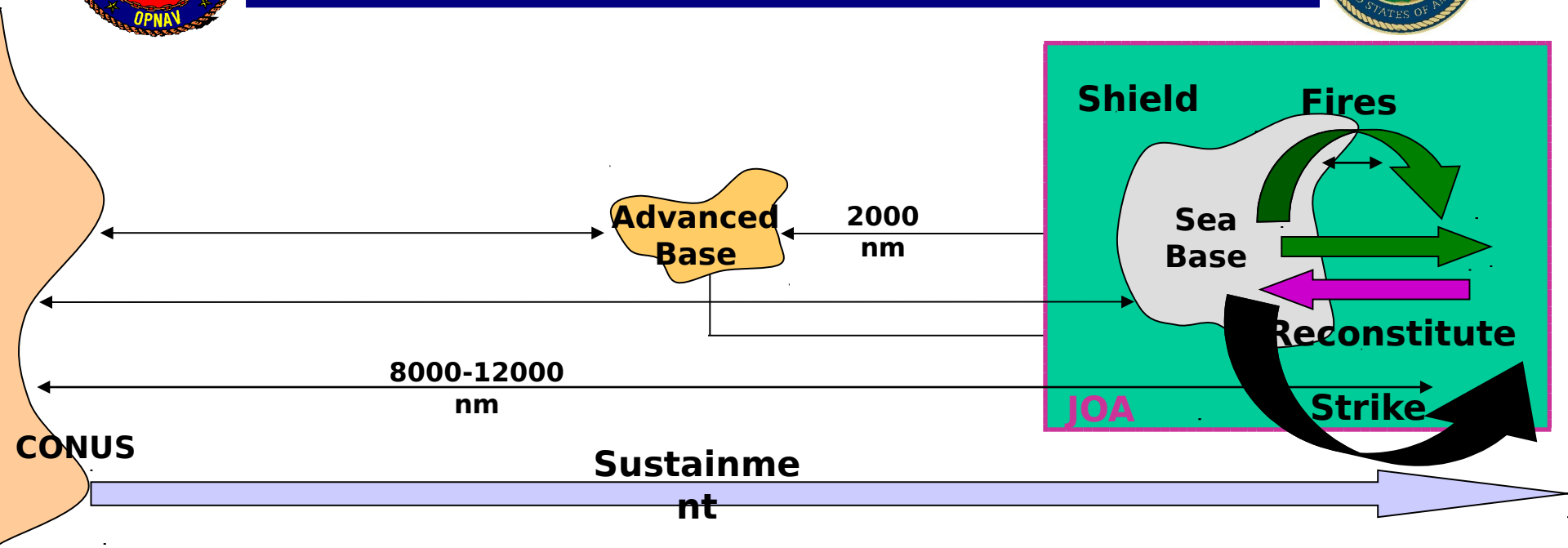
ıval Special Clearance Team ON





Mobile Security Forces

Sea Basing



- ESF Integration
- MPF(F)
- Connectors
- Technology Gaps

Sea Basing Technological Gaps

- ✓ *Surface connector interface between large and small vessels*
- ✓ *Surface connector interface between large vessels*
- ✓ *Heavy lift surface connector*
- ✓ *Heavy load transfer in high sea states*
- ✓ *Sea base capable heavy lift vertical connector*
- ✓ *Automated and integrated warehousing*
- ✓ *Distributed, collaborative operational logistics planning*
- ✓ *Total asset visibility*
- ✓ *Advanced simulators for rehearsal*

Questions

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